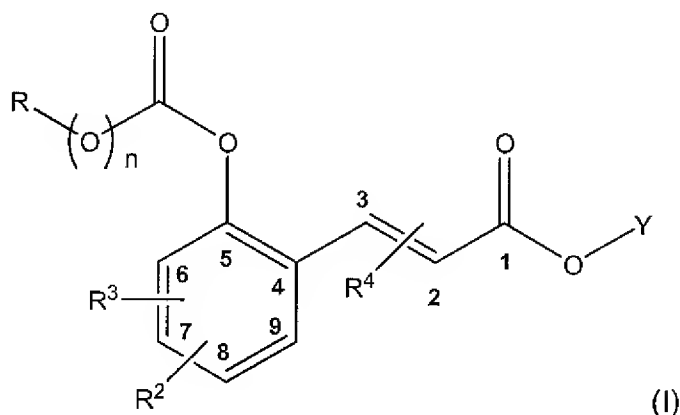


Claims

1. Use of a compound of formula (I) as precursor for olfactory compounds compound



wherein the acrylic acid ester double bond is of the E configuration;

n is zero or 1;

Y is $-\text{CR}^5\text{R}^6\text{R}^7$, wherein R^5 , R^6 and R^7 are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, and the sum of all carbon atoms ($\text{R}^5 + \text{R}^6 + \text{R}^7$) is not greater than 18; or

Y is $-\text{CR}^5\text{R}^6\text{R}^7$, wherein R^5 , R^6 and R^7 are independently hydrogen or a C_1 - C_{18} hydrocarbon residue containing one or more atoms/groups selected from O, N and C(O), and the sum of all carbon atoms ($\text{R}^5 + \text{R}^6 + \text{R}^7$) is not greater than 18; or

Y is $-\text{CR}^8=\text{CR}^9\text{R}^{10}$, wherein R^8 , R^9 and R^{10} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($\text{R}^8 + \text{R}^9 + \text{R}^{10}$) is not greater than 18; or

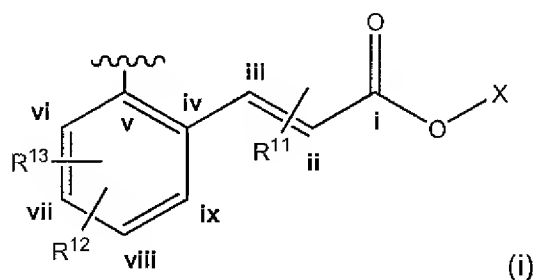
Y is $-\text{CR}^8=\text{CR}^9\text{R}^{10}$, wherein R^8 , R^9 and R^{10} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue containing one or more atoms/groups selected from O, N and C(O), the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($\text{R}^8 + \text{R}^9 + \text{R}^{10}$) is not greater than 18;

R^2 and R^3 are independently hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkoxy residue, $-NH_2$, $-NO_2$, $-NHCO_2CH_3$, $-N(C_1-C_6 \text{ alkyl})_2$, $-N(\text{hydroxyalkyl})_2$, $-NHC(O)-(C_1-C_8 \text{ alkyl})$ or $-NHC(O)-(C_3-C_8 \text{ aryl})$; or

R^2 and R^3 are attached at the positions C(6,7), C(7,8), or C(8,9), and form together with the carbon atoms to which they are attached a dioxolane ring or a dioxane ring;

R^4 in 2- or 3-position is hydrogen, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_3 - C_6 cycloalkyl, or $-CN$; and

- a) if n is zero, R is a C_1 - C_{24} hydrocarbon residue, or C_1 - C_{24} hydrocarbon residue containing one or more heteroatoms selected from N, O and Si; or
- b) if n is 1, R is a C_1 - C_{25} hydrocarbon residue, a C_1 - C_{25} hydrocarbon residue containing one or more atoms/groups selected from N, O, Si, and $C(O)$, or C_1 - C_{25} hydrocarbon residue substituted by an ionic substituent of the formula $N(R^{20})_3^+$, in which R^{20} is the residue of an alkyl group with 1 to 18 carbon atoms; or
- R is a monovalent residue of the formula (i)



wherein

X is $-CR^{14}R^{15}R^{16}$, wherein R^{14} , R^{15} and R^{16} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, and the sum of all carbon atoms ($R^{14} + R^{15} + R^{16}$) is not greater than 18; or

X is $-CR^{14}R^{15}R^{16}$, wherein R^{14} , R^{15} and R^{16} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue containing one or more atoms/groups selected

from O, N and C(O), and the sum of all carbon atoms ($R^{14} + R^{15} + R^{16}$) is not greater than 18; or

X is $-CR^{17}=CR^{18}R^{19}$, wherein R^{17} , R^{18} and R^{19} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($R^{17} + R^{18} + R^{19}$) is not greater than 18; or

X is $-CR^{17}=CR^{18}R^{19}$, wherein R^{17} , R^{18} and R^{19} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue containing one or more atoms/groups selected from O, N and C(O), the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($R^{17} + R^{18} + R^{19}$) is not greater than 18;

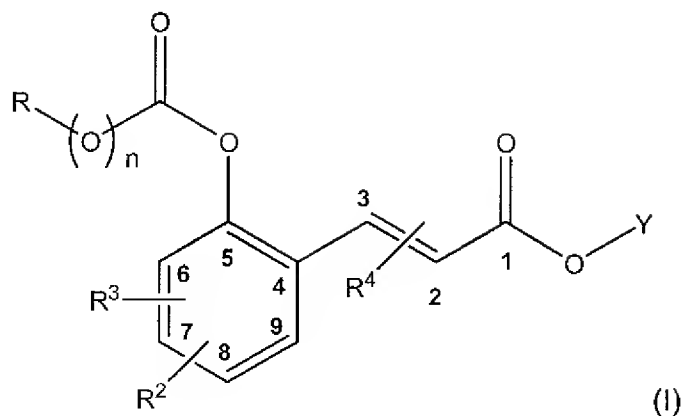
R^{12} and R^{13} are independently hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkoxy residue, $-NO_2$, $-NH_2$, $-NHCO_2CH_3$, $-N(C_1-C_6 \text{ alkyl})_2$, $-N(\text{hydroxyalkyl})_2$, $-NHC(O)-(C_1-C_8 \text{ alkyl})$ or $-NHC(O)-(C_3-C_8 \text{ aryl})$; or

R^{12} and R^{13} are attached at the positions C(vi,vii), C(vii,viii), or C(viii,ix), and form together with the carbon atoms to which they are attached a dioxolane ring or a dioxane ring;

R^{11} in ii- or iii-position is hydrogen, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_3 - C_6 cycloalkyl, or $-CN$.

2. A consumer product comprising a compound of formula (I) as defined by claim 1.
3. A process for preparing compositions which provide upon activation an olfactory compound comprising incorporating into the composition a compound of formula (I) as defined by claim 1.
4. A process of providing an olfactory compound to a substrate comprising the steps:
 - a) cleaving a compound of formula (I) as defined by claim 1 by hydrolysis resulting in a compound of formula (Ia); followed by
 - b) cleaving the compound of formula (Ia) of step a under activating conditions in the presence of light resulting in a coumarin (IIa).

5. A compound of formula (I)



wherein the acrylic acid ester double bond is of the E configuration;

n is zero or 1;

Y is $-\text{CR}^5\text{R}^6\text{R}^7$, wherein R^5 , R^6 and R^7 are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, and the sum of all carbon atoms ($\text{R}^5 + \text{R}^6 + \text{R}^7$) is not greater than 18 and at least 6; or

Y is $-\text{CR}^5\text{R}^6\text{R}^7$, wherein R^5 , R^6 and R^7 are independently hydrogen or a C_1 - C_{18} aliphatic residue containing one or more atoms/groups selected from O, N and C(O), and the sum of all carbon atoms ($\text{R}^5 + \text{R}^6 + \text{R}^7$) is not greater than 18; or

Y is $-\text{CR}^8=\text{CR}^9\text{R}^{10}$, wherein R^8 , R^9 and R^{10} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($\text{R}^8 + \text{R}^9 + \text{R}^{10}$) is not greater than 18; or

Y is $-\text{CR}^8=\text{CR}^9\text{R}^{10}$, wherein R^8 , R^9 and R^{10} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue containing one or more atoms/groups selected from O, N and C(O), the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($\text{R}^8 + \text{R}^9 + \text{R}^{10}$) is not greater than 18;

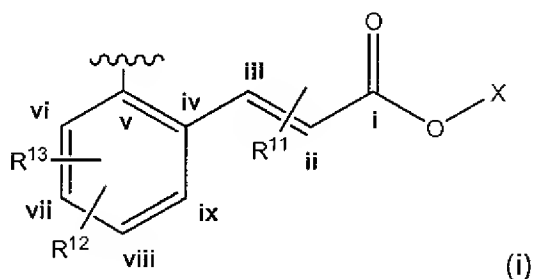
R^2 and R^3 are independently hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkoxy residue, $-\text{NH}_2$, $-\text{NO}_2$, $-\text{NHCO}_2\text{CH}_3$, $-\text{N}(\text{C}_1\text{-C}_6 \text{ alkyl})_2$, $-\text{N}(\text{hydroxyalkyl})_2$, $-\text{NHC(O)}-(\text{C}_1\text{-C}_8 \text{ alkyl})$ or

-NHC(O)-(C₃-C₈ aryl); or

R² and R³ are attached at the positions C(6,7), C(7,8), or C(8,9), and form together with the carbon atoms to which they are attached a dioxolane ring or a dioxane ring;

R⁴ in 2- or 3-position is hydrogen, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₃-C₆ cycloalkyl, or -CN; and

- a) if n is zero, R is a C₂-C₂₄ hydrocarbon residue, or C₁-C₂₄ hydrocarbon residue containing one or more heteroatoms selected from N, O and Si; or
- b) if n is 1, R is a C₁-C₂₅ hydrocarbon residue, a C₁-C₂₅ hydrocarbon residue containing one or more atoms/groups selected from N, O, Si, and C(O), or C₁-C₂₅ hydrocarbon residue substituted by an ionic substituent of the formula N(R²⁰)₃⁺, in which R²⁰ is the residue of an alkyl group with 1 to 18 carbon atoms; or
R is a monovalent residue of the formula (i)



wherein

X is -CR¹⁴R¹⁵R¹⁶, wherein R¹⁴, R¹⁵ and R¹⁶ are independently hydrogen or a C₁-C₁₈ hydrocarbon residue, and the sum of all carbon atoms (R¹⁴+R¹⁵+R¹⁶) is not greater than 18; or

X is -CR¹⁴R¹⁵R¹⁶, wherein R¹⁴, R¹⁵ and R¹⁶ are independently hydrogen or a C₁-C₁₈ hydrocarbon residue containing one or more atoms/groups selected from O, N and C(O), and the sum of all carbon atoms (R¹⁴+R¹⁵+R¹⁶) is not greater than 18; or

X is $-\text{CR}^{17}=\text{CR}^{18}\text{R}^{19}$, wherein R^{17} , R^{18} and R^{19} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue, the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($\text{R}^{17} + \text{R}^{18} + \text{R}^{19}$) is not greater than 18; or

X is $-\text{CR}^{17}=\text{CR}^{18}\text{R}^{19}$, wherein R^{17} , R^{18} and R^{19} are independently hydrogen or a C_1 - C_{18} hydrocarbon residue containing one or more atoms/groups selected from O, N and C(O), the geometry of the enol double bond is E or Z, and the sum of all carbon atoms ($\text{R}^{17} + \text{R}^{18} + \text{R}^{19}$) is not greater than 18;

R^{12} and R^{13} are independently hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkoxy residue, $-\text{NO}_2$, $-\text{NH}_2$, $-\text{NHCO}_2\text{CH}_3$, $-\text{N}(\text{C}_1\text{-C}_6 \text{ alkyl})_2$, $-\text{N}(\text{hydroxyalkyl})_2$, $-\text{NHC}(\text{O})\text{-(C}_1\text{-C}_8 \text{ alkyl)}$ or $-\text{NHC}(\text{O})\text{-(C}_3\text{-C}_8 \text{ aryl)}$; or

R^{12} and R^{13} are attached at the positions C(vi,vii), C(vii,viii), or C(viii,ix), and form together with the carbon atoms to which they are attached a dioxolane ring or a dioxane ring;

R^{11} in ii- or iii-position is hydrogen, C_1 - C_4 alkyl, C_2 - C_4 alkenyl, C_3 - C_6 cycloalkyl, or $-\text{CN}$.